



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,123	07/30/2001	Subhash C. Roy	TRA-040 C1	1388

7590

01/08/2003

David P. Gordon, Esq.  
65 Woods End Road  
Stamford, CT 06905

EXAMINER

WHITMORE, STACY

ART UNIT

PAPER NUMBER

2812

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/918,123

Applicant(s)

ROY ET AL.

Examiner

Stacy A Whitmore

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-8 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

FINAL ACTION

1. Newly submitted claims 9-14 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: newly submitted claims 9-14 require a different search for the second (debugger clock) which was not present in the original claims.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 9-14 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 4-5, 8, and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Segars et al. (6,052,774).

4. As for claim 4, Segars et al. disclosed the invention as claimed, including a method of debugging a processor, said method comprising:

providing information about processor activity in real time [col. 12, lines 59-67];  
associating the instructions executed by the processor with information about processor activity, wherein said providing information about processor activity includes providing information about substantially every instruction executed by the processor [abstract; col. 9; and col. 12, line 65 - col. 13, line 40, especially lines 26-28] [Segars reads on the claim language substantially every instruction since substantially every instruction is not every instruction and the exact number of instructions is therefore is some number less than every instruction].

Art Unit: 2812

5. As for claim 15, Segars disclosed a method of debugging a processor, said method comprising:

causing the processor to provide information about processor activity in real time [col. 12, lines 59-67];

causing a debugger to associate the instructions executed by the processor with information about processor activity,

6. As for claims 5 and 16, Segars disclosed providing information about processor activity includes providing an indication every time the processor stalls that the processor has stalled [col. 13, especially lines 48-67].

7. As for claim 8, Segars disclosed said providing information about processor activity is performed by the processor, and said associating the instructions is performed by a debugger [col. 7-8].

8. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segars et al. (6,052,774) in view of Folwell et al. (5,473,754).

9. As for claims 6-7, and 17-18, Segars et al. disclosed the invention substantially as claimed, including the method of debugging a processor as cited above in the rejection of claims 1 and 15.

Segars et al. did not specifically disclose [6] the information about processor activity includes information as to at least one of whether the last instruction executed was a jump, a jump based on contents of a register, a branch taken, or an instruction which encountered an exception, and [7] providing information regarding the status of the processor when certain processor events occur, said certain processor events including at least one of a change in status of an interrupt line, an internal processor exception, and the execution of a jump based on the contents of a register.

Art Unit: 2812

Folwell et al. disclosed [6] and [7] [col. 2, table 3, col. 5, table 4, col. 1, line 64 – col. 2, line 3, and col. 8, lines 1-9].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Segars et al. and Folwell et al. because having information about processor activity as in [2] and [3] would improve the debugging system of Segars et al. by allowing for the understanding of how program flow discontinues are handled [Folwell et al., col. 2, lines 22-24].

10. Applicant's arguments filed 10/15/02 have been fully considered but they are not persuasive.

11. In the remarks, applicant argues in substance:

12. Segars does not disclose a debugger interface unit for a data processing apparatus; providing information about substantially every instruction; providing a processor and a debugger with separate clocks; providing information about processor activity is performed by the processor, and said associating the instructions is performed by a debugger [col. 7-8].

13. Examiner respectfully disagrees for the following reasons:

14. The claim limitation of a debugger interface unit for a data processing apparatus is not a claimed limitation, and therefore is rendered moot;

15. Segars disclosed providing information about substantially every instruction [Segars reads on the claim language substantially every instruction since substantially every instruction is not every instruction and the exact number of instructions is therefore is some number less than every instruction which is disclosed by Segars];

Art Unit: 2812

16. The claim limitation of providing a processor and a debugger with separate clocks is rendered moot, since this claim limitation is not included in the originally elected claims;

17. Segars does disclose providing information about processor activity is performed by the processor, and said associating the instructions is performed by a debugger [col. 7-8].

18. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A Whitmore whose telephone number is (703) 305-0565. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on (703) 308-3325. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Application/Control Number: 09/918,123

Page 6

Art Unit: 2812


Stacy A Whitmore

Patent Examiner

Art Unit 2812

SW

January 7, 2003

  
John F. Niebling  
Supervisory Patent Examiner  
Technology Center 2800